STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: *10/573,600*
Source: *1Fwp*
Date Processed by STIC: *4/6/06*

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT
MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
        http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05): U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: _10/573,600_

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1____Wrapped Nucleics
Wrapped Aminos
The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor **after** creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2____Invalid Line Length
The rules require that a line **not exceed** 72 characters in length. This includes white spaces.

3____Misaligned Amino
Numbering
The numbering under each 5th amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.

4____Non-ASCII
The submitted file was not saved in ASCII(DOS) text, as **required** by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**

5____Variable Length
Sequence(s)____contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6____PatentIn 2.0
"bug"
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**

7____Skipped Sequences
(OLD RULES)
Sequence(s) _____ missing. If intentional, please insert the following lines for **each** skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped
Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.

8____Skipped Sequences
(NEW RULES)
Sequence(s) _____ missing. If **intentional**, please insert the following lines for **each** skipped sequence.
<210> sequence id number
<400> sequence id number
000

9____Use of n's or Xaa's
(NEW RULES)
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10____Invalid <213>
Response
Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence. (see item 11 below)

11____Use of <220>
Sequence(s) ___ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules

12____PatentIn 2.0
"bug"
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13____Misuse of n/Xaa
"n" can **only** represent a single <u>nucleotide</u>; "Xaa" can **only** represent a single <u>amino acid</u>
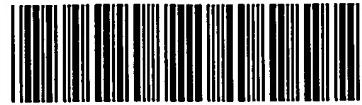
IFWP

RAW SEQUENCE LISTING   DATE: 04/06/2006
PATENT APPLICATION: US/10/573,600   TIME: 10:49:35

Input Set : **A:\UPN-P3230-sequence listing.txt**
Output Set: **N:\CRF4\04062006\J573600.raw**

```
 3 <110> APPLICANT: The Trustees of the University of Pennsylvania
 4        Wilson, James M.
 5        Gao, Guangping
 6        Alvira, Mauricio R.
 7        Vandenberghe, Luk H.
 9 <120> TITLE OF INVENTION: Adeno-Associated Virus (AAV) Clades, Sequences, Vectors
10        Containing Same, and Uses Therefor
12 <130> FILE REFERENCE: UPN-P3230PCT
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C--> 14 `<140> CURRENT APPLICATION NUMBER: US/10/573,600`
C--> 14 `<141> CURRENT FILING DATE: 2006-03-24`
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14 <150> PRIOR APPLICATION NUMBER: US 60/508,226
15 <151> PRIOR FILING DATE: 2003-09-30
17 <160> NUMBER OF SEQ ID NOS: 236
19 <170> SOFTWARE: PatentIn version 3.3
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 2211
23 <212> TYPE: DNA
24 <213> ORGANISM: adeno-associated virus, clone hu.31
26 <400> SEQUENCE: 1
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29 gagtggtggg ctttgaaacc tggagcccct caacccaagg caaatcaaca acatcaagac   120
31 aacgctcgag gtcttgtgct tccgggttac aaataccttg gacccggcaa cggactcgac   180
33 aaggggggagc cggtcaacgc agcagacgcg gcggccctcg agcacgacaa ggcctacgac   240
35 cagcagctca aggccggaga caacccgtac ctcaagtaca accacgccga cgccgagttc   300
37 caggagcggc tcaaagaaga tacgtctttt gggggcaacc tcgggcgagc agtcttccag   360
39 gccaaaaaga ggcttcttga acctcttggt ctggttgagg aagcggctaa gacggctcct   420
41 ggaaagaaga ggcctgtaga gcagtctcct caggaaccgg actcctccgc gggtattggc   480
43 aaatcgggtg cacagcccgc taaaaagaga ctcaatttcg gtcagactgg cgacacagag   540
45 tcagtcccag accctcaacc aatcggagaa cctcccgcag cccccctcagg tgtgggatct   600
47 cttacaatgg cttcaggtgg tggcgcacca gtggcagaca taacgaagg tgccgatgga   660
49 gtgggtagtt cctcgggaaa ttggcattgc gattcccaat ggctgggga' cagagtcatc   720
51 accaccagca cccgaacctg ggccctgccc acctacaaca atcacctcta caagcaaatc   780
53 tccaacagca catctggagg atcttcaaat gacaacgcct acttcggcta cagcaccccc   840
55 tggggggtatt ttgacttcaa cagattccac tgccacttct caccacgtga ctggcagcga   900
57 ctcatcaaca caactggggg attccggcct aagcgactca acttcaagct cttcaacatt   960
59 caggtcaaag aggttacgga caacaatgga gtcaagacca tcgccaataa ccttaccagc  1020
61 acggtccagg tcttcacgga ctcagactat cagctcccgt acgtgctcgg tcggctcac  1080
63 gagggctgcc tcccgccgtt cccagcggac gtttttcatga ttcctcagta cgggtatctg  1140
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67 ccgtcgcaaa tgctaagaac gggtaacaac ttccagttca gctacgagtt tgagaacgta  1260
69 cctttccata gcagctacgc tcacagccaa agcctggacc gactaatgaa tccactcatc  1320
71 gaccaatact tgtactatct ctcaaagact attaacggtt ctggacagaa tcaacaaacg  1380
73 ctaaaattca gtgtggccgg acccagcaac atggctgtcc agggaagaaa ctacatacct  1440
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handwritten annotations: pp 1-5 / Does Not Comply / Corrected Diskette Needed / Invalid ⟨2137 response / see item 10 ch Exam / Summary / Heet

Input Set : **A:\UPN-P3230-sequence listing.txt**
Output Set: **N:\CRF4\04062006\J573600.raw**

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 79 ggacctgcta tggccagcca caaagaagga gaggaccgtt tctttccttt gtctggatct   1620
 81 ttaatttttg gcaaacaagg aactggaaga gacaacgtgg atgcggacaa agtcatgata   1680
 83 accaacgaag aagaaattaa aactactaac ccggtagcaa cggagtccta tggacaagtg   1740
 85 gccacaaacc accagagtgc ccaagcacag gcgcagaccg gctgggttca aaaccaagga   1800
 87 atacttccgg gtatggtttg gcaggacaga gatgtgtacc tgcaaggacc catttgggcc   1860
 89 aaaattcctc acacggacgg caactttcac ccttctccgc tgatgggagg gtttggaatg   1920
 91 aagcacccgc ctcctcagat cctcatcaaa aacacacctg tacctgcgga tcctccaacg   1980
 93 gccttcaaca aggacaagct gaactctttc atcacccagt attctactgg ccaagtcagc   2040
 95 gtggagatcg agtgggagct gcagaaggaa aacagcaagc gctggaaccc ggagatccag   2100
 97 tacacttcca actattacaa gtctaataat gttgaatttg ctgttaatac tgaaggtgta   2160
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103 <211> LENGTH: 2211
104 <212> TYPE: DNA
105 <213> ORGANISM: new AAV serotype, clone hu.32
107 <400> SEQUENCE: 2
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112 gacagcaggg gtcttgtgct tcctgggtac aagtacctcg acccggcaa cggactcgac   180
114 aaggggggagc cggtcaacgc agcagacgcg gcggccctcg agcacgacaa ggcctacgac   240
116 cagcagctca aggccggaga caacccgtac ctcaagtaca accacgccga cgccgagttc   300
118 caggagcggc tcaaagaaga tacgtctttt gggggcaacc tcgggcgagc agtcttccag   360
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124 aaatcgggtt cacagcccgc taaaaagaaa ctcaatttcg gtcagactgg cgacacagag   540
126 tcagtccccg accctcaacc aatcggagaa cctcccgcag cccctcagg tgtgggatct   600
128 cttacaatgg cttcaggtgg tggcgcacca gtggcagaca ataacgaagg tgccgatgga   660
130 gtgggtagtt cctcgggaaa ttggcattgc gattcccaat ggctggggga cagagtcatc   720
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136 tggggggtatt ttgacttcaa cagattccac tgccacttct caccacgtga ctggcagcga   900
138 ctcatcaaca caactggggg attccggcct aagcgactca acttcaagct cttcaacatt   960
140 caggtcaaag aggttacgga caacaatgga gtcaagacca cgccaataa cettaccagc   1020
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144 gagggctgcc tcccgccgtt cccagcggac gtttttcatga ttcctcagta cgggtatctg   1140
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162 ttaatttttg gcaaacaagg aactggaaga gacaacgtgg atgcggacaa agtcatgata   1680
164 accaacgaag aagaaattaa aactactaac ccggtagcaa cggagtccta tggacaagtg   1740
166 gccacaaacc accagagtgc ccaagcacag gcgcagaccg gctgggttca aaaccaagga   1800
168 atacttccgg gtatggtttg gcaggacaga gatgtgtacc tgcaaggacc catttgggcc   1860
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same error (handwritten annotation, circling "new AAV serotype, clone hu.32")

RAW SEQUENCE LISTING   DATE: 04/06/2006
PATENT APPLICATION: US/10/573,600   TIME: 10:49:35

Input Set : A:\UPN-P3230-sequence listing.txt
Output Set: N:\CRF4\04062006\J573600.raw

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170 aaaattcctc acacggacgg caactttcac ccttctccgc taatgggagg gtttggaatg  1920
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174 gctttcaata aggacaagct gaactctttc atcacccagt attctactgg ccaagtcagc  2040
176 gtggagattg agtgggagct gcagaaggaa aacagcaagc gctggaaccc ggagatccag  2100
178 tacacttcca actattacaa gtctaataat gttgaatttg ctgttaatac tgaaggtgta  2160
180 tatagtgaac cccgccccat tggcaccaga tacctgactc gtaatctgta a           2211
183 <210> SEQ ID NO: 3
184 <211> LENGTH: 2211
185 <212> TYPE: DNA
186 <213> ORGANISM: adeno-associated virus, human clone 9
188 <400> SEQUENCE: 3
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191 gagtggtggg ctttgaaacc tggagcccct caacccaagg caaatcaaca acatcaagac   120
193 aacgctcgag gtcttgtgct tccgggttac aaataccttg acccggcaa cggactcgac    180
195 aaggggggagc cggtcaacgc agcagacgcg gcggccctcg agcacgacaa ggcctacgac   240
197 cagcagctca aggccggaga caacccgtac ctcaagtaca accacgccga cgccgagttc   300
199 caggagcggc tcaaagaaga tacgtctttt gggggcaacc tcgggcgagc agtcttccag   360
201 gccaaaaaga ggcttcttga acctcttggt ctggttgagg aagcggctaa gacggctcct   420
203 ggaaagaaga ggcctgtaga gcagtctcct caggaaccgg actcctccgc gggtattggc   480
205 aaatcgggtg cacagcccgc taaaaagaga ctcaatttcg gtcagactgg cgacacagag   540
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211 gtgggtagtt cctcgggaaa ttggcattgc gattcccaat ggctggggga cagagtcatc   720
213 accaccagca cccgaacctg ggccctgccc acctacaaca atcacctcta caagcaaatc   780
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217 tgggggtatt ttgacttcaa cagattccac tgccacttct caccacgtga ctggcagcga   900
219 ctcatcaaca acaactgggg attccggcct aagcgactca acttcaagct cttcaacatt   960
221 caggtcaaag aggttacgga caacaatgga gtcaagacca tcgccaataa ccttaccagc  1020
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225 gagggctgcc tcccgccgtt cccagcggac gttttcatga ttcctcagta cgggtatctg  1140
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229 ccgtcgcaaa tgctaagaac gggtaacaac ttccagttca gctacgagtt tgagaacgta  1260
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235 ctaaaattca gtgtggccgg acccagcaac atggctgtcc agggaagaaa ctacatacct  1440
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239 tttgcttggc ctggagcttc ttcttgggct ctcaatggac gtaatagctt gatgaatcct  1560
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253 aagcacccgc ctcctcagat cctcatcaaa aacacacctg tacctgcgga tcctccaacg  1980
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257 gtggagatcg agtgggagct gcagaaggaa aacagcaagc gctggaaccc ggagatccag  2100
259 tacacttcca actattacaa gtctaataat gttgaatttg ctgttaatac tgaaggtgta  2160
261 tatagtgaac cccgccccat tggcaccaga tacctgactc gtaatctgta a           2211
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RAW SEQUENCE LISTING   DATE: 04/06/2006
PATENT APPLICATION: US/10/573,600   TIME: 10:49:35

Input Set : A:\UPN-P3230-sequence listing.txt
Output Set: N:\CRF4\04062006\J573600.raw

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266 <212> TYPE: DNA
267 <213> ORGANISM: new AAV serotype, clone hu.17
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274 gacggccggg gtctggtgct tcctggctgc aagtacctcg gacccttcaa cggactcgac   180
276 aaggggggagc ccgtcaacgc ggcggacgca gcggccctcg agcacgacaa ggcctacgac   240
278 cagcagctca aagcgggtga caatccgtac ctgcggtata accacgccga cgccgagttt   300
280 caggagcgtc tgcaagaaga tacgtctttt ggggcaacc tcgggcgagc agtcttccag   360
282 gccaagaagc gggttctcga acctctcggt ctggttgagg aaggcgctaa gacggctcct   420
284 ggaaagaaga gaccggtaga gccatcaccc cagcgttctc cagactcctc tacgggcatc   480
286 ggcaagacag gccagcagcc cgcgaaaaag agactcaact ttgggcagac tggcgactca   540
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292 ggagtgggta gttcctcagg aaattggcat tgcgattcca catggctggg cgacagagtc   720
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300 cgactcatca caacaactg gggattccgg cccaagagac tcaacttcaa gctcttcaac   960
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306 caccagggct gcccgcctcc gttcccggcg gacgtcttca tgattcctca gtacgggtac  1140
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314 atcgaccagt acctgtacta cctgtctcgg actcagtcca cgggaggtac cgcaggaact  1380
316 cagcagttgc tattttctca ggccgggcct aataacatgt cggctcaggc caaaaactgg  1440
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334 ggactgaaac acccgcctcc tcagatcctg attaagaata cacctgttcc cgcggatcct  1980
336 ccaactacct tcagtcaagc caagctggcg tcgttcatca cgcagtacag caccggacag  2040
338 gtcagcgtgg aaattgaatg ggagctgcag aaagagaaca gcaagcgctg gaacccagag  2100
340 attcagtata cttccaacta taacaaatct gttaatgtgg actttactgt ggacactaat  2160
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347 <212> TYPE: DNA
348 <213> ORGANISM: new AAV serotype, clone hu.6
350 <400> SEQUENCE: 5
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353 gagtggtggg acttgaaacc tggagccccg aaacccaaag ccaaccagca aaagcaggac   120
355 gacggccggg gtctggtgct tcctggctac aagtacctcg gacccttcaa cggactcgac   180
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RAW SEQUENCE LISTING   DATE: 04/06/2006
PATENT APPLICATION: US/10/573,600 TIME: 10:49:35

Input Set : A:\UPN-P3230-sequence listing.txt
Output Set: N:\CRF4\04062006\J573600.raw

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361 caggagcgtc  tgcaagaaga  tacgtctttt  gggggcaacc  tcgggcgagc  agtcttccag   360
363 gccaagaagc  gggttctcga  acctctcggt  ctggttgagg  aaggcgctaa  gacggctcct   420
365 ggaaagaaga  gaccggtaga  gccatcaccc  cagcgttctc  cagactcctc  tacgggcatc   480
367 ggcaagacag  gccagcagcc  cgcgaaaaag  agactcaact  ttgggcagac  tggcgactca   540
369 gagtcagtgc  ccgaccctca  accaatcgga  gaaccccccg  caggcccctc  tggtctggga   600
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373 ggagtgggta  gttcctcagg  aaattggcat  tgcgattccg  catggctggg  cgacagagtc   720
375 atcaccacca  gcacccgacc  ctgggccctc  cccacctaca  acaaccacct  ctacaagcaa   780
377 atctccaacg  gacatcgggg  aggaagcacc  aacgacaaca  cctacttcgg  ctacagcacc   840
379 ccctgggggt  attttgactt  taacagattc  cactgccact  tctcaccacg  tgactggcag   900
381 cgactcatca  caacaactg  gggattccgg  cccaagagac  tcaacttcaa  gctcttcaac   960
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385 agcacgattc  aggtctttac  ggactcggaa  taccagctcc  cgtacgtcct  cggctctgcg  1080
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[Handwritten annotation in right margin: "Please correct this type 1 error in subsequent sequences"]

VERIFICATION SUMMARY   DATE: 04/06/2006
PATENT APPLICATION: **US/10/573,600**   TIME: 10:49:36

Input Set : **A:\UPN-P3230-sequence listing.txt**
Output Set: **N:\CRF4\04062006\J573600.raw**

L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date